General Education in Vocational/Technical Programs of a Comprehensive Community College

Kathy Brock

In 1775, Paul Revere sounded the warning, "The Redcoats are coming." About two years ago community college administrators and faculty sounded a similar warning, "The contextual learners are coming." Just as Revere's warning was meant to prepare the American colonists to engage British soldiers, the modern warning issued a challenge to community colleges to meet the needs of students with a penchant toward contextual learning. Contextual learning is the academic foundation of the more than 1,100 Tech Prep programs throughout the country. Approximately one-and-a-half million students are enrolled in these programs and over twenty-eight percentage are headed for community colleges. (United States General Accounting Office Report GAO/HEHS-95-144.) (Sounders, 1996)

College Overview

Northwest Iowa Community College (NCC) is a small, comprehensive, public two-year community college located in rural northwest Iowa. A part of a system that blankets the state of Iowa, NCC served as the initial pilot in the mid 60's for the providing of vocational/technical training to high school students from the surrounding area. The success of this pilot resulted in the passage of legislation, which established a system of vocational/community colleges statewide. NCC maintained its emphasis on the providing of quality vocational/technical training until 1988 when the college established its Arts and Science Program. The college enrolls 1300 credit students annually, with approximately 50% of the students enrolled in the vocational/technical programs and 50% enrolled in the college transfer Arts and Science Program. In addition the college has an annual enrollment of 28,000 registrations in non-credit continuing education.

Introduction

While proceeding through an NCA visit for reaccreditation in 1995 Northwest Iowa Community College discovered that the focus and implementation of general education within the college, especially the vocational/technical programs, was not consistent with the current focus and interpretation of general education by NCA. A number of areas related to general education were identified and the college was scheduled for a General Education Focused Visit in the fall of 1997. One of the most challenging components to be addressed in the two-year time span was the identification of specific courses within the vocational/technical programs that were of an appropriate rigor, and were presented in such a way as to be considered "general education" rather than "related instruction," and yet provided the instruction in such a way that would promote success in student learning.

NCXs Perspective on General Education

Throughout it's history NCA has held to the tenet that higher education involved, breadth as well as depth of study. General education refers to that component which provides breadth. In 1983 the Commission approved the following statement on general education:

General education is "general" in several clearly identifiable ways: it is not directly related to a student's formal technical, vocational, or professional preparation; it is a part of every student's course of study, regardless of his or her area of emphasis, and it is intended to impart common knowledge, intellectual concepts, and attitudes that every educated person should possess. (Handbook of Accreditation, 1994-96)
Although the definition of "general education" has remained consistent since that time we do find early references to related instruction. The Handbook of Accreditation 1992-93 referenced the following:

General education at the postsecondary level is an essential element of undergraduate degree programs and a prerequisite to graduate degree programs.

That same publication stated the following in relationship to "related instruction":

General education and/or a program of related instruction at the postsecondary level is an essential element of undergraduate certificate and diploma programs two or more academic years in length.

Undergraduate certificate and diploma programs that extend as long as degree programs should provide for more than immediate vocational interests. Because of the strong vocational component in such programs, general education or related instruction or a combination of general education and related instruction may provide this broadening. "Related instruction" is drawn from the usage in vocational-technical education: instruction broadening a curriculum beyond purely vocational purposes, but closely associated with those purposes, and sometimes incorporated into vocational courses. Such instruction commonly provides for the development of knowledge and skills in language, mathematics, and human relations. Institutions should include in their discussion of this Requirement a statement regarding the purposes that related education is expected to serve and the ways in which related education is an essential part of the overall educational program.

More recently GIR 16 requires institutions to:

... give evidence of its commitment to the importance of general education by including an appropriate component of general education in all of its programs of substantial length, whether they lead to certificates, diplomas, or degrees-... (Handbook of Accreditation, 1994-96)

References to "related instruction" have been eliminated.

**General Education/Related Instruction**

As a truly comprehensive community college, NCC focuses on needs and wants of its different customer groups. The college recognizes that the focus and purpose of the three major educational areas - arts and science, vocational/technical, and continuing education-are very different

In the Arts and Science Program the general education component was developed to be compatible with the customarily accepted/required course work for students transferring to a four-year institution.

One need only look at the statement of general education for the AAS Degree and Diploma programs that existed at the college at the time of the initial visit (presented below) to recognize that the college had placed general education in the context of supporting the occupational program in which a student was enrolled.

Vocational/technical programs at Northwest Iowa Community College are designed to prepare individuals for immediate employment. The general education component of those programs is an integral part of the education of the whole person in preparation for occupational success. General education is intended to impart common knowledge, intellectual concepts and attitudes enabling people to function effectively in society. Course offerings are designed to enhance employability, provide a foundation and opportunity for continuing education, and promote intellectual stimulation and development of citizenship skills.

One of the first challenges NCC faced as it initiated a process to define, clarify, and reestablish its general education core was a singular understanding across the institution of the similarities and differences between "general education" and "related instruction." The first reaction of faculty was to oversimplify, looking at general education as instruction with few practical applications, while considering related instruction as ensuring that students could apply knowledge in the field they were entering. With this understanding faculty saw various segments of the educational community in conflict. The NCA general education requirements were seen to be in direct opposition to Tech/Prep, Skills 2000, Perkins legislation and various research supporting applied/contextual learning.
Sounders refers to the support given to the enhancement of learning that takes place when instruction occurs in an applied/contextual method:

According to contextual learning theory, learning is enhanced when students (learners) process new information or knowledge in such a way that it makes sense to them in their frame of reference (their own inner world of memory, experience, and response). This approach to learning and teaching assumes that the mind naturally seeks meaning in context - that is, in the environment where the person is located and that it does so through searching for relationships that make sense and appear useful (Caine and Caine, Making Connection: Teaching and the Human Brain).

Others who support a need for recognition of the variances in student learning styles also speak to a need for colleges to provide students with hands-on experiences as well as theory. (Hadfield, 1995)

The Carl Perkins Act, which provides funding to both high schools and institutions of higher education for the providing of vocational education, was just recently reauthorized. It continues to require that academic and vocational education be integrated to result in increased student achievement in both academic and vocational competencies.

Northwest Iowa Community College agrees with the following philosophy:

The case for integrated contextual education and the requirements by professional, state, regional and national agencies for us to pursue high skill, technical curricula provides us with compelling reasons to pursue a contextually integrated and aligned educational process. (Bass, Foral, 1997)

It was only after the institution defined applied learning as relating to both "general education" and "related instruction" that the faculty could proceed in redefining general education to meet current NCA requirements. Figure A illustrates the relationships of these terms as differentiated by this institution. The author does not imply that this relationship is the official interpretation of NCA. Rather it is this individual college’s model based upon its understanding of NCA’s definition of “general education” and “related instruction” and a desire to enhance instruction based upon current educational theories and research.

![Figure A](image)

Figure 1

The courses that were being offered to students in vocational/technical programs at the time of the 1995 NCA reaccreditation visit were truly related instruction. Most of them centered on general education competencies but focused almost entirely on applications from a single career area. After a year of discussion with faculty, the college agreed that any course that would meet the general education requirement must be compatible with one of the three descriptions presented in Figure A as “general education.” As most of the courses in question
were indeed focused on the instruction of general education competencies the major change required was an increase in the number of applications that would be applicable to a variety of career fields or to an individual's personal life.

With this new understanding of the possible interrelationship between "general education" and applied learning it was possible for faculty to identify compatibility among various current educational initiatives.

To prevent further confusion on the role of "related instruction" a group that consisted of the entire faculty, the administrative cabinet, and representatives of Student Services developed a definition for general education that was applicable to all credit students, both those in the Associate of Arts Program and the vocational/technical programs.

The newly developed definition states:

*General education is a common core of courses that provides students the opportunity to learn the skills and knowledge needed in a changing society.*

**Action Plan**

- Developed College-Wide Definition for General Education
- Identified Curriculum Areas that Could Meet General Education Requirements
  - Identified Non-Program Specific Competencies Needed by All Diploma or AAS Degree Graduates (in math & communications)
  - Identified Non-Program Specific Competencies Needed by All Diploma or AAS Degree Graduates (in math & communications)
- Identified Existing Courses and Developed Additional Courses which Included the Identified Competencies

**Figure B**

An NCC General Education Committee was established that included representatives from the general education faculty (transfer and non-transfer), the vocational/technical faculty, student services, and instructional administration. This committee served as an umbrella group which dealt with all general education issues raised in the initial NCA report. The committee refined the new general education definition by identifying specific general education curricular areas.

Two additional committees were established to address the key areas where the lack of "general education" as compared to "related instruction" had been identified—mathematics and communication. Each of the committees consisted of all faculty from the curricular area, the instructional deans, and the Vice President of Instruction. Technical faculty from individual programs were not members of these two committees. The initial
task of each group was to identify general education competencies that should be considered developmental in nature, which should be considered the core competencies required of all diploma graduates, and which additional competencies were expected of all AAS graduates. It was only after these competencies had been agreed upon that the discussion proceeded to the identification of existing courses that would be appropriate for diploma level programs and that would meet the level of expectations for an AAS Degree. Figure C and Figure D illustrate the work of these two committees. Once these committees identified courses that met the different competency levels for general education they reviewed the context and delivery of each course to ensure it was compatible with one of the three descriptions identified as "general education" (Figure A). In relation to the descriptor that is most closely associated to "related instruction" it was suggested that greater than 75% of all applications should be general, non-program specific.

**Future**

Northwest Iowa Community College will continue to review and address issues relative to the success of the college's general education program in providing a broad based background required by students in a changing society. More specifically the college will be assessing the various courses identified as meeting mathematics and communication general education requirements for any variance of academic gain by students. While NCC subscribes to NCA's emphasis on general education it continues to value an applied/contextual learning environment

**References**


Kathy Brock is Vice President of Instructional Services at Northwest Iowa Community College in Sheldon.
### Appendix

#### Figure C

<table>
<thead>
<tr>
<th>DEVELOPMENTAL</th>
<th>DIPLOMA</th>
<th>AAS</th>
<th>AA/AS</th>
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<tr>
<td>Whole Numbers</td>
<td>Reading Tables/Graphs</td>
<td>Quadratic Equations Formulation</td>
<td>Competencies inclusive of diploma</td>
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<tr>
<td>Arithmetic</td>
<td>Estimation</td>
<td>Linear Equations Simultaneous Equations</td>
<td>and AAS course requirements with allowances for areas of specialty and increased rigor</td>
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<td>Concept of Fractions</td>
<td>Critical Thinking --Story Problems Fractions</td>
<td>Decimals Percentages Ratios Proportion Arithmetic Using Fractions Measurement Metric Geometry - Area, Perimeter Volume of, Circles, Squares, Rectangles and Triangles Calculator Usage Basic Formulas - Substitution - Not Manipulation</td>
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#### COURSES

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<tbody>
<tr>
<td>LPN Math Math Foundations Basic Algebra/Trigonometry Contemporary Math</td>
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<td>Arithmetic for College Students A Math Trade Math Elementary Algebra Statistics Calculus</td>
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<tr>
<td>College Algebra &amp; Trigonometry I Intermediate Algebra</td>
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<tr>
<td>Arithmetic for College Students B Algebra IA Algebra I B Algebra IIA Algebra II B Algebra &amp; Trigonometry II College Algebra Trigonometry</td>
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### Figure D

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<th>DEVELOPMENTAL</th>
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<th>AA/AS</th>
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<tr>
<td>Basic grammar skills</td>
<td>Paragraph development</td>
<td>Differences between writing and conversational speech</td>
<td>Differences between informal writing and academic writing</td>
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<td>Sentence structure skills</td>
<td>Advanced grammar skills</td>
<td>Characteristics of technical writing</td>
<td>Research and documentation skills</td>
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<tr>
<td>Thesis statement development</td>
<td>Paragraph and report organizational skills</td>
<td>Writing strategies: outlines, process descriptions, summaries and common memo, getter, formats etc.</td>
<td>Critical thinking skills (development arguments)</td>
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<td>Spelling and punctuation skills</td>
<td>Editing and proofreading skills</td>
<td>Stylistic devices</td>
<td>Paraphrasing skills</td>
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#### COURSES

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<tr>
<td>English 2200 Basic Communications Technical Communications College Composition</td>
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<td>English 2600 Business Communications Interpretive Writing</td>
</tr>
<tr>
<td>English 3200 Creative Writing</td>
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<tr>
<td>English Brushup Speech</td>
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Each level is expected to have those skills listed in the previous level.